



Public Works Commission

**Special Meeting**  
**PUBLIC WORKS COMMISSION**  
**Agenda**  
**Saturday, December 13, 2014 at 9:00 a.m.**  
**Corporation Yard, 1326 Allston Way, Berkeley, CA**  
**Willow Room**

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| A. PRELIMINARY BUSINESS  | 9:00 – 9:10 AM  |
| 1. Call to Order   |                 |
| 2. Roll Call   |                 |
| B. ACTION ITEMS  | 9:10 – 9:20 AM  |
| 1. Approval of 2015 Regular Meeting Dates  |                 |
| C. INTRODUCTION: MEETING GOALS   | 9:20 – 9:30 AM  |
| D. SHARING EXPERIENCES SERVING ON THE<br>PUBLIC WORKS COMMISSION IN 2014                         | 9:30 - 9:45 AM  |
| Roundtable discussion among Commissioners  |                 |
| 1. Outreach to community and Council   |                 |
| 2. Meeting format, guest speakers, other   |                 |
| 3. New Commissioner transition   |                 |
| E. WORK PLANNING FOR 2015  | 9:45 – 12:00 PM |
| 1. 2015 PUBLIC WORKS DEPARTMENT PLAN   |                 |
| 2. 2015 PWC WORK PLANNING  |                 |
| Open discussion of matters of current importance to *<br>the Commission, Council, and Community. |                 |
| 3. SUBCOMMITTEE ASSIGNMENTS  |                 |
| a. Plans completed, underway   |                 |
| b. Initial assignments for 2015  |                 |
| F. ADJOURN   |                 |

\* Indicates written material included in packet.

\*\* Indicates material to be delivered at meeting.

**A complete agenda packet is available for public review at the Engineering Division front desk.**

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**ADA Disclaimer:**

This meeting is being held in a wheelchair accessible location. To request a disability-related accommodation(s) to participate in the meeting, including auxiliary aids or services, please contact the Disability Services specialist at 981-6346(V) or 981-7075 (TDD) at least three business days before the meeting date. Please refrain from wearing scented products to this meeting.

**SB 343 Disclaimer:**

Any writings or documents provided to a majority of the Commission regarding any item on this agenda will be made available for public inspection at the Public Works Department located at the address below.

**Communications Disclaimer:**

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**Commission Secretary:**

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**BERKELEY PUBLIC WORKS COMMISSION**  
**2015 WORK PLANNING**

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**Mission:**

Advises the Council on maintenance, repair, and capital improvement of streets, sidewalks, sanitary sewers, storm drains, City buildings, communication systems, vehicles and equipment, and undergrounding of utilities.

No.	Subject	Background	Potential Activities	PWC Priority for 2015
1	Measure M implementation	Measure M was passed in Nov. 2012. The PWC worked on the following: <ul style="list-style-type: none"> <li>• Nov. 2013 - Paving plan for FY2014-2018. This was a 2+3 plan.</li> <li>• Jun 2014 – Paving plan for FY2015.</li> <li>• Nov 2014 – Paving plan for FY2016.</li> </ul>	A. Work with staff to develop the rolling 5-year paving plan. The next period will be FY2016-2020. The current sub-committee is Ray, Diz, Larry, and Margo. B. Review and recommend revisions to the City’s Street Rehabilitation and Repair Policy. This should consider setting June of each year to prepare the 5 year paving plan, use of the Scorecard, etc. C. Assist City and Skeo Solutions with outreach to the public. This should include annual community meeting and other activities. The current sub-committee is Ray, Diz, and Travis.	
2	Permeable paver demonstration project	The City completed construction of a demonstration project on Allston Way in 2014.	A. Provide oversight on the post construction monitoring of the project area. The monitoring should include runoff quantity, runoff water quality, noise, vehicle speed, durability, etc.  Larry has the most background on this.	
3	LED street lighting	The City completed a project to convert all of Berkeley to LED street lighting in 2014.	A. Provide oversight on energy savings, areas needing lighting changes, etc.  The current sub-committee is Andy and Margo.	
4	Public facility naming policy	The PWC has addressed the proposed renaming of Harold Way and of a pedestrian walk.	A. Review and recommend revisions to the City’s public facility renaming policy. The PWC has identified some changes that would be helpful.	

No.	Subject	Background	Potential Activities	PWC Priority for 2015
		During this process, we became very familiar with the City's policy on renaming public facilities.	Travis was the lead on this.	
5	Residential curbside Electric vehicle charging policy	Council requested the City Manager to work with staff and commissions to develop standards, conditions, and guidelines for a pilot program to allow electric vehicles charging in the public right-of-way.	A. Provide oversight on the pilot program.  Larry was the lead on this.	
6	Electric utility undergrounding	Berkeley has been involved with Rule 20A utility undergrounding since the 1970's. Special districts were formed; however, the funds are very limited. There is currently a moratorium on forming new districts. Councilwoman Wengraf is considering a task force to review the feasibility of preparing an undergrounding master plan for the City.	A. Participate in the task force, if it is formed.  Larry has the most background on this. Ray has met with Councilwoman Wengraf.	
7	Sanitary sewers	Berkeley has signed a consent decree to improve its sewer system and to reduce peak flows.	A. Provide oversight on the program implementation.	
8	Local Hazards Mitigation Plan	A draft of Berkeley's 2014 LHMP was released in October 2013 and comments were due by Dec. 9. The final draft plan was to be presented to Council for adoption in spring 2014.	A. Review subsequent drafts for public works implications and monitor the submittal to Council.  Larry worked on PWC's input.	
9	Sidewalk maintenance	Improperly maintained sidewalks are a legal and financial liability to the City. Having adequate	A. Review and update the City's sidewalk maintenance policy.	

No.	Subject	Background	Potential Activities	PWC Priority for 2015
		funds and staff resources is a challenge to the City. The current policy was approved with little public input.	The current sub-committee is Margo, Andy, and Travis.	
10	Emergency preparedness	See article below from San Francisco Chronicle	A. Discuss appropriateness for Berkeley.  Larry has interest in this.	

**San Francisco Chronicle**

November 30, 2014

KASHIWA-NO-HA, Japan — A new suburb northeast of Tokyo can supply its 5,000 residents with electricity for three days the next time an earthquake blacks out the national grid. And in a country still recovering from a 2011 earthquake and tsunami that killed 15,889 people, the suburb’s builders know it’s simply a question of when — not whether — catastrophe will strike again. The quake and tsunami, which crippled the Fukushima Dai-ichi nuclear plant and sent blackouts rolling across Japan, has forced the country to rethink disaster planning and look for new ways to keep the lights on. One solution may lie in “microgrids,” small electrical grids that can keep running on their own if the national grid fails. In the United States, interest in microgrids has been surging since Hurricane Sandy in 2012 blacked out lower Manhattan for days. And in an earthquake-prone region like the Bay Area, the benefits of such a system could be enormous.

**'Turning point'**

“The earthquake was the big turning point,” said Atsuji Morita, a project manager with Toyota Motor Corp.’s business planning division. “It changed our minds to create a new system to ensure the security of this industrial area.”

Toyota refers to that system as the “F-Grid.” The company’s new auto plant, next to the village of Ohira in Japan’s Miyagi prefecture, has its own power generating station, fueled by natural gas. The 7.8 megawatt plant also supplies electricity to a cluster of smaller factories and facilities next door. One makes glass for car windows, another, tires. A third grows green peppers — roughly 5 percent of Japan’s domestic supply — using waste heat from the power plant to keep the peppers warm. The greenhouse lies just a few hundred yards from the Toyota factory, where 1,500 workers build Corollas and Aquas. The entire industrial park, about 85 miles northwest of the Fukushima nuclear plant, is tied in to the national power grid. But in emergencies, it can function on its own, as well as feed power to Ohira’s town hall and emergency shelters. In case the F-Grid’s power plant has to shut down, banks of used Prius batteries will supply enough juice to

run phones and computers. The plant even sells excess electricity to the local utility at times, although that was never the point. “It’s not our object to sell electricity — only the surplus,” Morita said. “When we have a disaster, like an earthquake, we’ll need the electricity.”

Planning for Kashiwa-no-ha Smart City, 30 miles northeast of Tokyo, began years before the 2011 earthquake. But the newly built suburb has become a model illustrating how to plan for emergencies. It too has its own natural gas power plant that can feed apartments, offices and shops. It also has rooftop solar panels, the largest installation of lithium-ion batteries in Japan and will soon add another massive battery pack using a different chemistry, sodium-sulfur. Unlike Toyota’s new factory, Kashiwa-no-ha gets the vast majority of its power from the national grid on most days — at least 90 percent. But should the grid fail, like the rolling blackouts that swept much of Japan after the Fukushima plant melted down, the community can generate its own electricity for three days, provided its residents cut individual energy use by 40 percent. Kashiwa-no-ha even keeps a supply of oil on hand to run a backup power generator, after its builders concluded that oil was easier to store on site than large quantities of natural gas. The community maintains three-day emergency supplies of water and food rations.

### **Convenient and efficient**

Those emergency features probably aren’t the suburb’s main draw. The Smart City has its own commuter rail station with a 30-minute express train to downtown Tokyo. The community boasts its own hospital and mall — complete with Old Navy, Zara and Tully’s Coffee — all tightly packed together for easy walking. And its apartments were built with energy-efficient lights and appliances to keep monthly bills low and reduce greenhouse gas emissions. “It’s very convenient to get to my office, it’s very convenient for doing shopping and it’s very comfortable here,” said Ryogi Iwasawa, 56, who moved into the complex this fall after taking an office job in Tokyo. He’s paying about \$30 per month on utility bills, 25 percent less than in his last home, in Sendai. “We’re all more aware of energy since the disaster,” said Iwasawa, whose tiny one-room apartment looks out over the train-station’s grass-covered roof. “People my age are very aware of the environment and saving energy and CO2.”

In the United States, microgrids have been created on corporate campuses and military bases. In the Bay Area, the Santa Rita Jail in Dublin created one in 2012 with the help of Chevron Corp. It protects the facility’s power supply from interruption and lowering its annual energy bills as well. Honda wants to bring the same kind of self-sufficiency to private homes. Twenty-four miles away from the Kashiwa-no-ha Smart City, the automaker has built two houses that can generate their own power — from multiple sources — when disaster strikes. They lie across a busy street from Saitama University, which helped design them, and from the outside, they look no different from the rest of the neighborhood. But each features the “Honda Smart Home System,” which combines thin-film solar panels on the roof, a battery in the carport, and a small, stationary engine that produces both electricity and heat for the home.

### **Smart home system**

The engine, developed by Honda, sits in a waist-high cabinet, runs on natural gas and is twice as efficient as a typical large power plant. With energy-management software orchestrating all the home’s features, including a battery-powered version of the Honda Fit car parked outside, Honda estimates that residents can cut their carbon dioxide emissions 50 percent. A Honda employee and his family are living in

one of the homes as an experiment, while the other is used solely for demonstrations. (Honda built a similar home at UC Davis). Honda designed its houses to tap multiple energy sources in the wake of a disaster. Solar panels can't generate electricity at night — hence the home battery. And in some areas devastated by the 2011 earthquake, natural gas service was restored before electricity, one of the reasons Honda's smart homes include a gas-fired engine.

“Lots of sources are required in case of emergency,” said Naohiro Maeda, manager of Honda's community planning department. Although companies have been developing smart homes for many years, the 2011 earthquake, tsunami and nuclear accident changed how Honda thought about them, he said. “After that, 'smart' is thinking about all cases — especially emergency cases — how to guarantee a good life,” Maeda said. “That is the new meaning of 'smart.’”

*David R. Baker is a San Francisco Chronicle staff writer. He recently traveled to Japan on a tour organized and funded by the Foreign Press Center/Japan, a nonprofit that arranges briefings and programs for foreign journalists living in or visiting the country. E-mail: [dbaker@sfchronicle.com](mailto:dbaker@sfchronicle.com) Twitter: @DavidBakerSF*